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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/612,418	07/07/2000	Raymond P. Johnston	54971USA3A.006	8574
32692	7590	01/27/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			MORAN, MARJORIE A	
			ART UNIT	PAPER NUMBER
			1631	
DATE MAILED: 01/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/612,418	Applicant(s) JOHNSTON ET AL.	
	Examiner Marjorie A. Moran	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 13, 39-41, 43-46, 49, 50, 53, 54, 60, 61, 72-75, 77 and 81-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 39-41, 43-46, 49, 50, 53, 54, 60, 61, 72-75, 77 and 81-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/29/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Priority

It is noted that the instantly amended claims recite new matter, as set forth above, which is not supported by Provisional application 60/142,585, to which the instant application claims priority. Priority for the instant claims is therefore granted only to the filing date of the instant application (at best), of July 7, 2000.

Information Disclosure Statement

The IDS filed 9/29/05 has been considered.

Claim Rejections - 35 USC § 112, 1st para

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-9, 13, 39-41, 43-46, 49-50, 53-54, 60-61, 72-75, 77, 81-85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

A detection article comprising a microchannel adapted to provide fluid flow "without any aid from any structures additional to the microchannels", as newly recited in claim 1, is new matter. Applicant is reminded that both positive and negative

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limitations of the claims must be fully supported by the originally filed disclosure. In the response filed 11/14/05, applicant does not point to specific support the originally filed disclosure for the newly added negative limitation of claim 1. Applicant states on page 7 of the response that "spontaneous fluid transport" is "clearly defined in the Specification to mean 'fluid transport without the aid from structure external to the microchannels'," but fails to point to any such "clear definition" in the original specification. The pages of the specification indicated by applicant as supportive of "spontaneous fluid transport" in the response do provide support for the terms "wicking," and "capillary action" as argued by applicant. However, while it is admitted that these terms MAY include fluid flow without the aid of "structures additional" to the disclosed microchannels, it is equally possible for the terms to apply to microchannels comprising "additional" structures, thus these terms do not inherently provide the "definition" argued by applicant. The terms argued by applicant are not defined by the specification to be fluid flow which occurs only in microchannels without any aid from "structures additional to the microchannels". Further, it is noted that fluid flow occurring without the aid of EXTERNAL structures is not the same as fluid flow which occurs without the aid of structures ADDITIONAL to the microchannel. The first excludes pumps, valves, "injectors", etc. which would induce fluid flow by the application of force (i.e. the fluid flow would not be "spontaneous" if force were applied), but does NOT exclude polymers, wicks, etc. IN the channel which would aid spontaneous fluid flow by inducing capillary action, passive (e.g. ionic or hydrophilic) attractions, a concentration gradient, etc. The second excludes ANY additional material within the channel which contribute to fluid flow, thus any type of

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wick, thread, polymer, etc. which, in fact, aid fluid flow (whether that is the intended function of the thread, wick, polymer, etc.) are excluded. It is noted that at least one embodiment of applicant's invention, in fact, specifically INCLUDES "additional structures" in the microchannels, as set forth on page 10, lines 3-4 and depicted in Figure 15 "...including a physical support, such as a thread, in each channel." In addition, claims 4, 40, and 44-45 specifically recite "additional structures" (detection elements) WITHIN the microchannels.

Original claim 1 recited the term "spontaneous fluid transport", but none of the original claims recited a negative limitation with regard to "external structures", therefore the original claims do not provide support for the newly added limitation.

Thus, there is no specific support in the originally filed disclosure for the newly added negative limitation of the amended claims and the specification "as a whole" indicates that microchannels comprising "additional" structures therein were indeed contemplated as an embodiment of the invention.

For these reasons, the claims recite new matter and are rejected.

Claim Rejections - 35 USC § 112, 2nd para

The rejection under 35 USC 112, 2nd paragraph is hereby withdrawn in view of the claim amendments filed 11/14/05.

Claim Rejections - 35 USC § 102

The rejection under 35 USC 102 is hereby withdrawn in view of the claim amendments filed 11/14/05. Applicant is advised, however, that deletion of the newly recited limitations (rejected as new matter, above), may result in reinstatement of the rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-9, 41, 46, 60-61, and 83-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over TSO et al. (US 6,613,560).

Applicant's arguments filed 11/14/05 have been fully considered but they are not persuasive. Applicant argues that the priority documents of TSO do not provide support for the "spontaneous transport" limitation recited in the instant claims. In response, it is noted that the instantly amended claims recite new matter, and that priority for the instant claims is granted only to the filing date of the instant application (at best), of July 7, 2000, as set forth above. The TSO patent was filed February 11, 2000, and therefore is properly prior art as of its filing date. As TSO does teach that a sample may be introduced into a device by "spontaneous fluid displacement", as previously set forth and admitted by applicant on page 10 of the response, the examiner

maintains both that TSO is proper prior art and that TSO makes obvious the claims for the reasons and motivations previously set forth. For all the reasons previously set forth and set forth above, the rejection is maintained.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (571) 272-0720. The examiner can normally be reached on Mon,Wed: 7-1:30; Tue,Thur: 7:30-6; Fri 7-3:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571)272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marjorie A. Moran
Primary Examiner
Art Unit 1631

Marjorie A. Moran
1/23/06